

**COLOR HALFTONING USING A MULTI-LEVEL
SUCCESSIVE-FILLING HALFTONE SCREENING ALGORITHM**

ABSTRACT

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A method is provided for rendering a color image with a plurality of separations with a multi-level successive-filling halftoning process using a single screen for a plurality of separations. For a separation to be processed, first, from the possible multiple levels for the separation, the set of levels that would be used and the number of dots corresponding to the different levels are decided. These decisions are based on the input level for the separation and input levels for the prior process separations. The location of the dots to be printed for the different levels for the separation is then decided by using the halftone screen, while simultaneously taking into account the placement of printed dots for the prior separations. The selection is done so as to best disperse dots and minimize overlap.

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